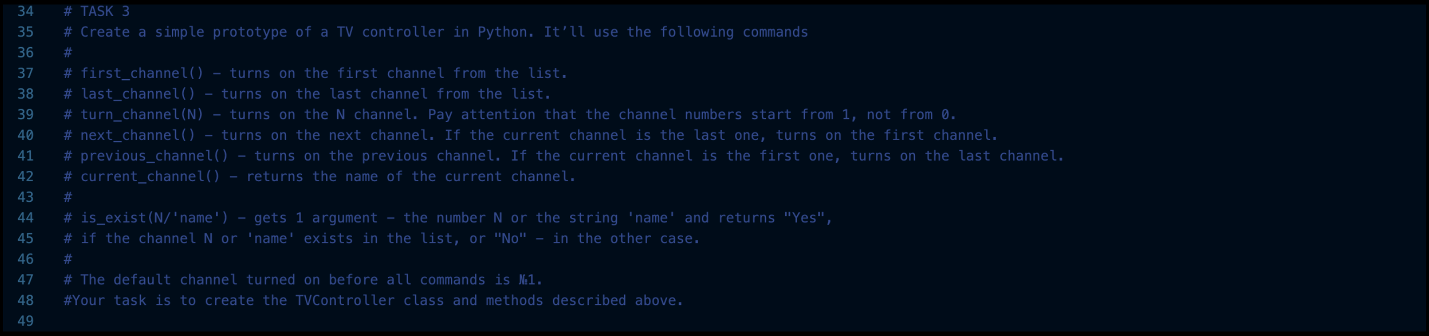
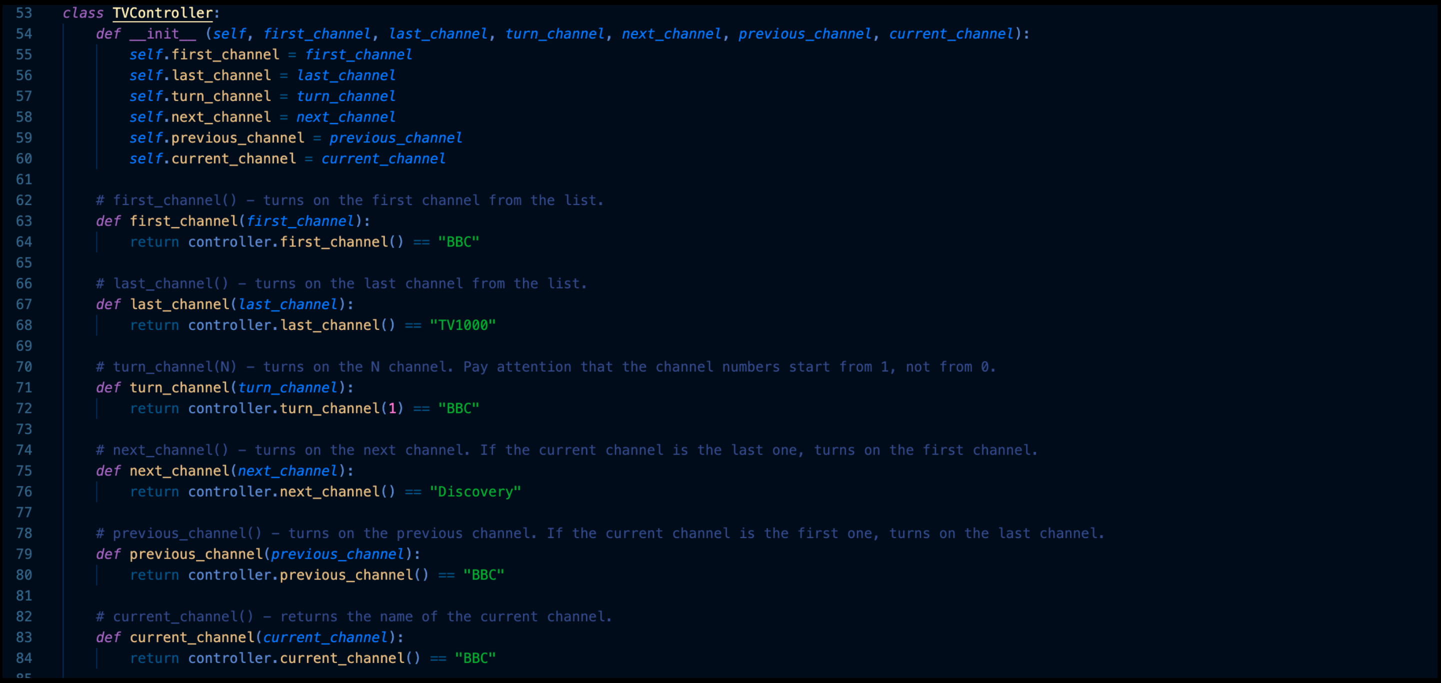
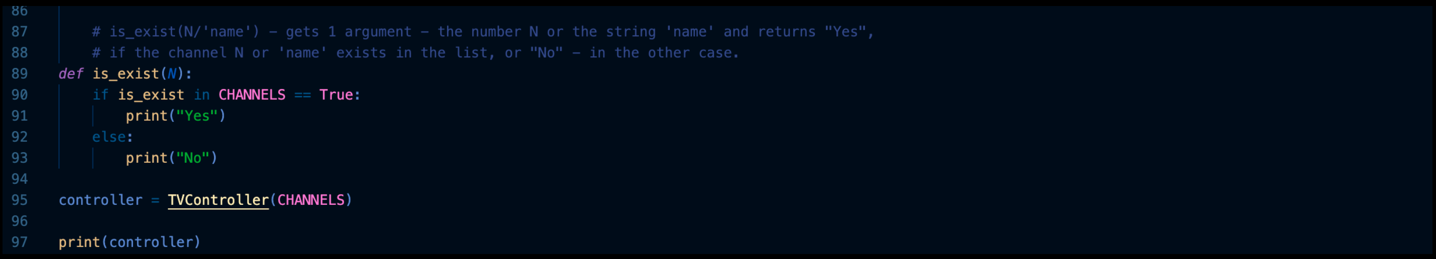
Task 3 - My attempt.



```
# TASK 3
# Create a simple prototype of a TV controller in Python. It’ll use the following commands
#
# first_channel() - turns on the first channel from the list.
# last_channel() - turns on the last channel from the list.
# turn_channel(N) - turns on the N channel. Pay attention that the channel numbers start from 1, not from 0.
# next_channel() - turns on the next channel. If the current channel is the last one, turns on the first channel.
# previous_channel() - turns on the previous channel. If the current channel is the first one, turns on the last channel.
# current_channel() - returns the name of the current channel.
#
# is_exist(N/'name') - gets 1 argument - the number N or the string 'name' and returns "Yes",
# if the channel N or 'name' exists in the list, or "No" - in the other case.
#
# The default channel turned on before all commands is №1.
#Your task is to create the TVController class and methods described above.
```

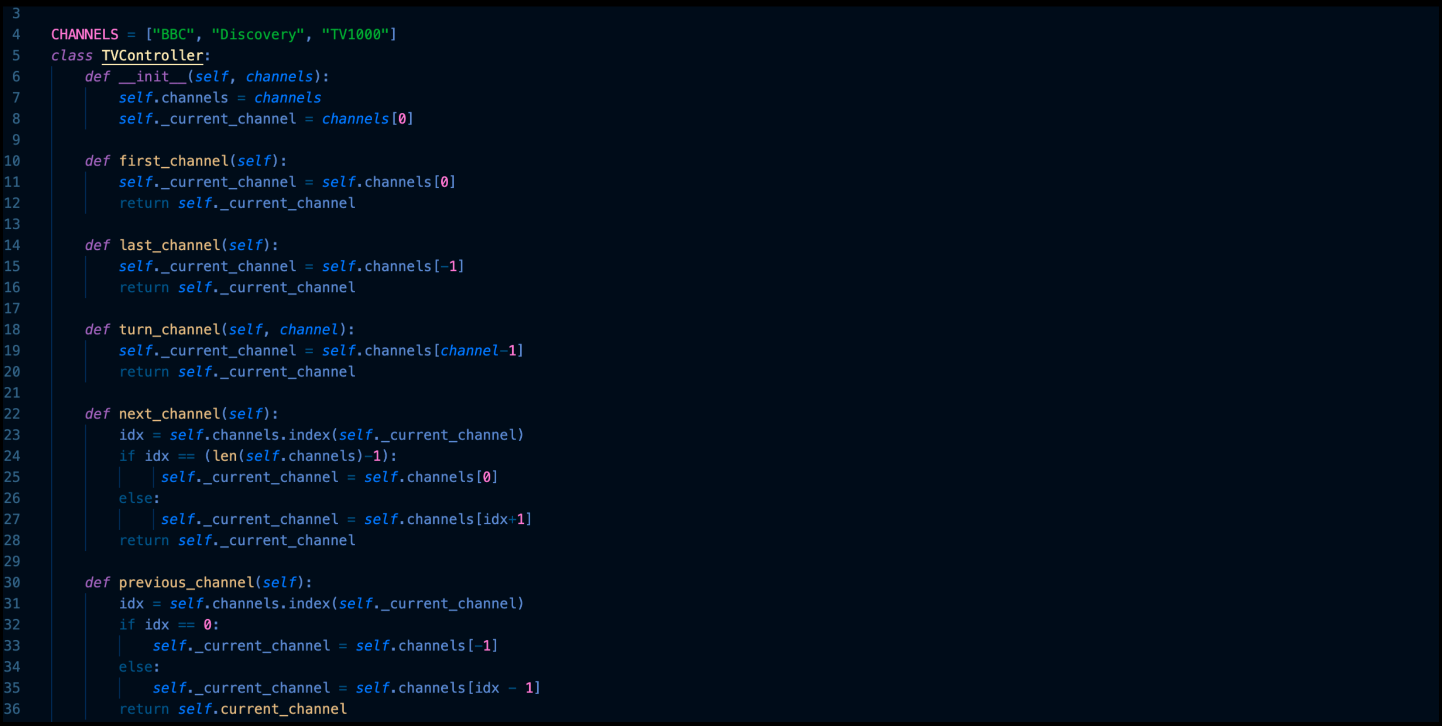


```
class TVController:
    def __init__ (self, first_channel, last_channel, turn_channel, next_channel, previous_channel, current_channel):
        self.first_channel = first_channel
        self.last_channel = last_channel
        self.turn_channel = turn_channel
        self.next_channel = next_channel
        self.previous_channel = previous_channel
        self.current_channel = current_channel

    # first_channel() - turns on the first channel from the list.
    def first_channel(first_channel):
        return controller.first_channel() == "BBC"

    # last_channel() - turns on the last channel from the list.
    def last_channel(last_channel):
        return controller.last_channel() == "TV1000"

    # turn_channel(N) - turns on the N channel. Pay attention that the channel numbers start from 1, not from 0.
    def turn_channel(turn_channel):
        return controller.turn_channel(1) == "BBC"

    # next_channel() - turns on the next channel. If the current channel is the last one, turns on the first channel.
    def next_channel(next_channel):
        return controller.next_channel() == "Discovery"

    # previous_channel() - turns on the previous channel. If the current channel is the first one, turns on the last channel.
    def previous_channel(previous_channel):
        return controller.previous_channel() == "BBC"

    # current_channel() - returns the name of the current channel.
    def current_channel(current_channel):
        return controller.current_channel() == "BBC"
```

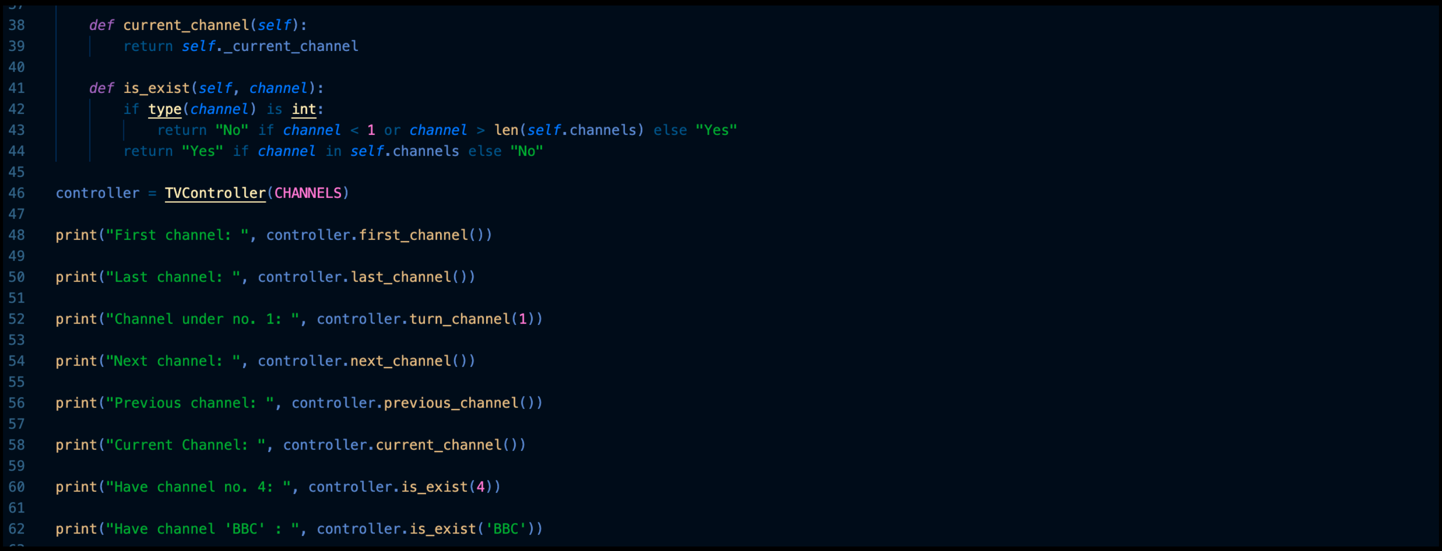


```
    # is_exist(N/'name') - gets 1 argument - the number N or the string 'name' and returns "Yes",
    # if the channel N or 'name' exists in the list, or "No" - in the other case.
def is_exist(N):
    if is_exist in CHANNELS == True:
        print("Yes")
    else:
        print("No")

controller = TVController(CHANNELS)

print(controller)
```

Task 3 - Help I received and copied from your lesson.



```python

CHANNELS = ["BBC", "Discovery", "TV1000"]
class TVController:
    def __init__(self, channels):
        self.channels = channels
        self._current_channel = channels[0]

    def first_channel(self):
        self._current_channel = self.channels[0]
        return self._current_channel

    def last_channel(self):
        self._current_channel = self.channels[-1]
        return self._current_channel

    def turn_channel(self, channel):
        self._current_channel = self.channels[channel-1]
        return self._current_channel

    def next_channel(self):
        idx = self.channels.index(self._current_channel)
        if idx == (len(self.channels)-1):
            self._current_channel = self.channels[0]
        else:
            self._current_channel = self.channels[idx+1]
        return self._current_channel

    def previous_channel(self):
        idx = self.channels.index(self._current_channel)
        if idx == 0:
            self._current_channel = self.channels[-1]
        else:
            self._current_channel = self.channels[idx - 1]
        return self.current_channel
```



```python
    def current_channel(self):
        return self._current_channel

    def is_exist(self, channel):
        if type(channel) is int:
            return "No" if channel < 1 or channel > len(self.channels) else "Yes"
        return "Yes" if channel in self.channels else "No"

controller = TVController(CHANNELS)

print("First channel: ", controller.first_channel())

print("Last channel: ", controller.last_channel())

print("Channel under no. 1: ", controller.turn_channel(1))

print("Next channel: ", controller.next_channel())

print("Previous channel: ", controller.previous_channel())

print("Current Channel: ", controller.current_channel())

print("Have channel no. 4: ", controller.is_exist(4))

print("Have channel 'BBC' : ", controller.is_exist('BBC'))
```